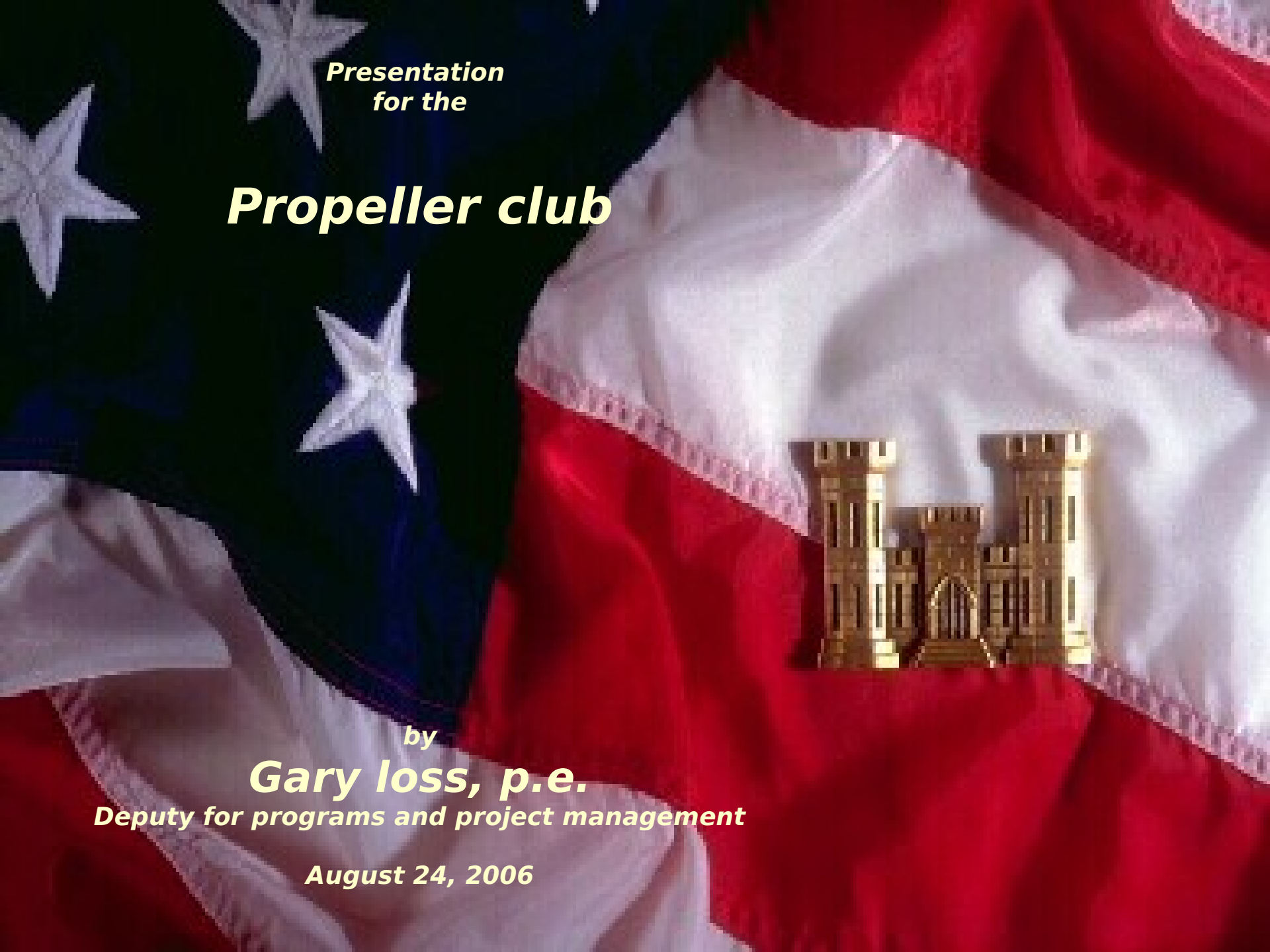


Presentation for the

Propeller club

by

Gary loss, p.e.

Deputy for programs and project management

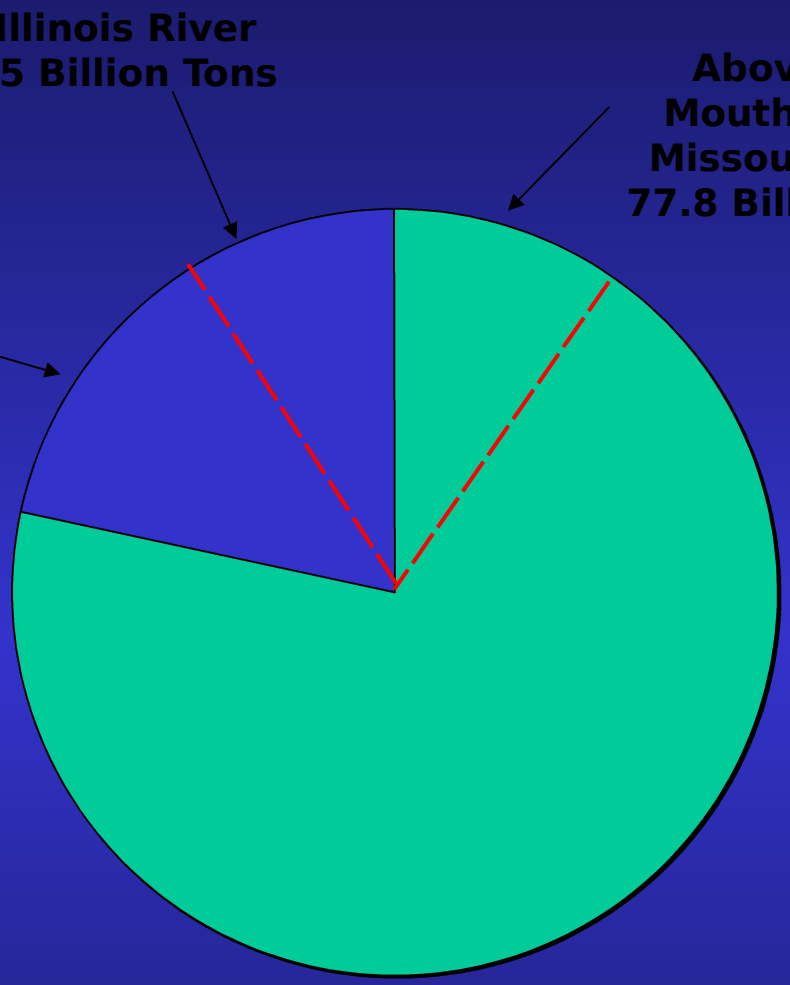
August 24, 2006

US Army Corps of Engineers®

Rock Island District

- Primarily a civil works district
- 78,000 square miles
- Portions of 5 states
- Operate 582 miles of 9-foot navigation channel
- 20 locks and dams
- 5 flood control reservoirs

US Army Corps of Engineers®

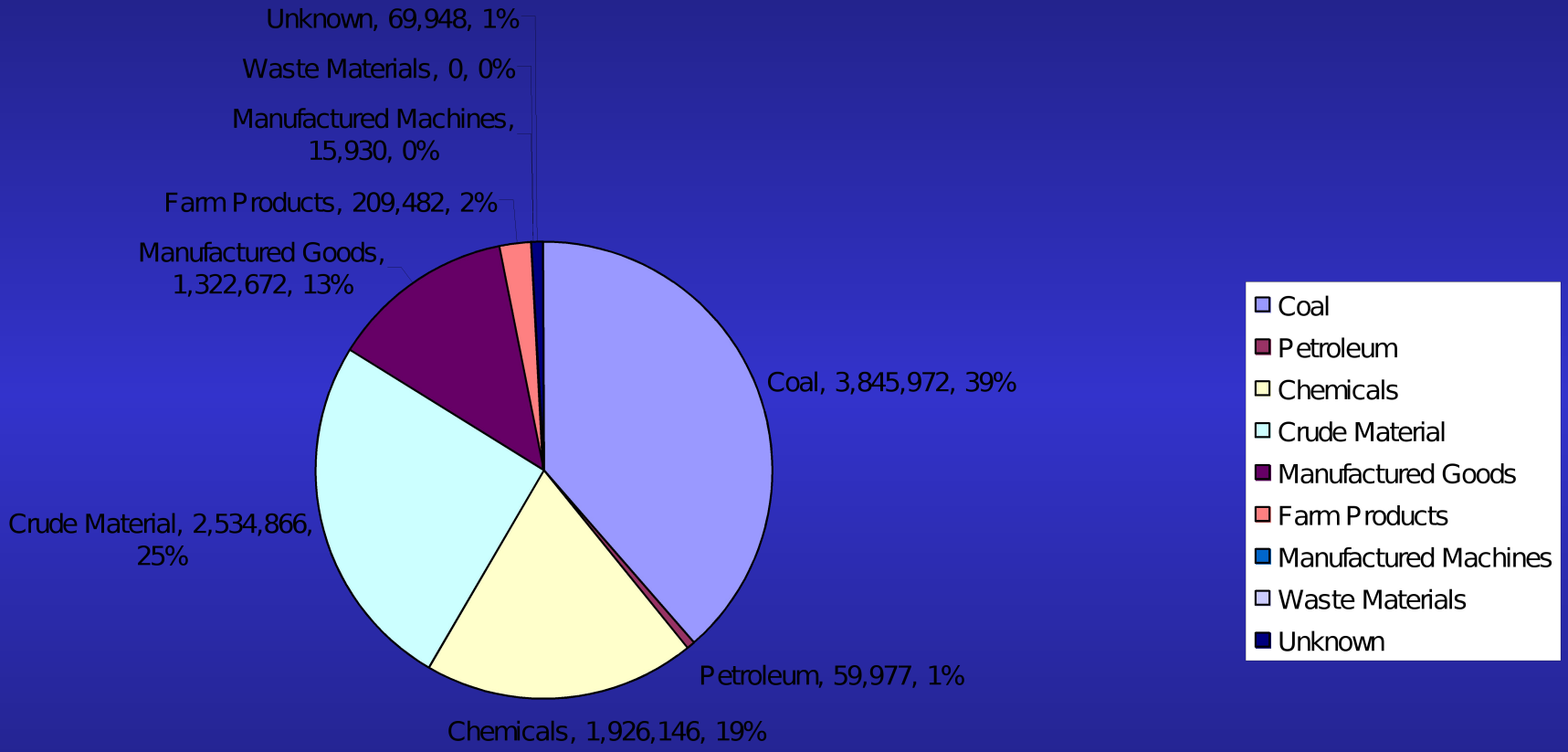


609.6 Billion Tons

Inland Navigation System

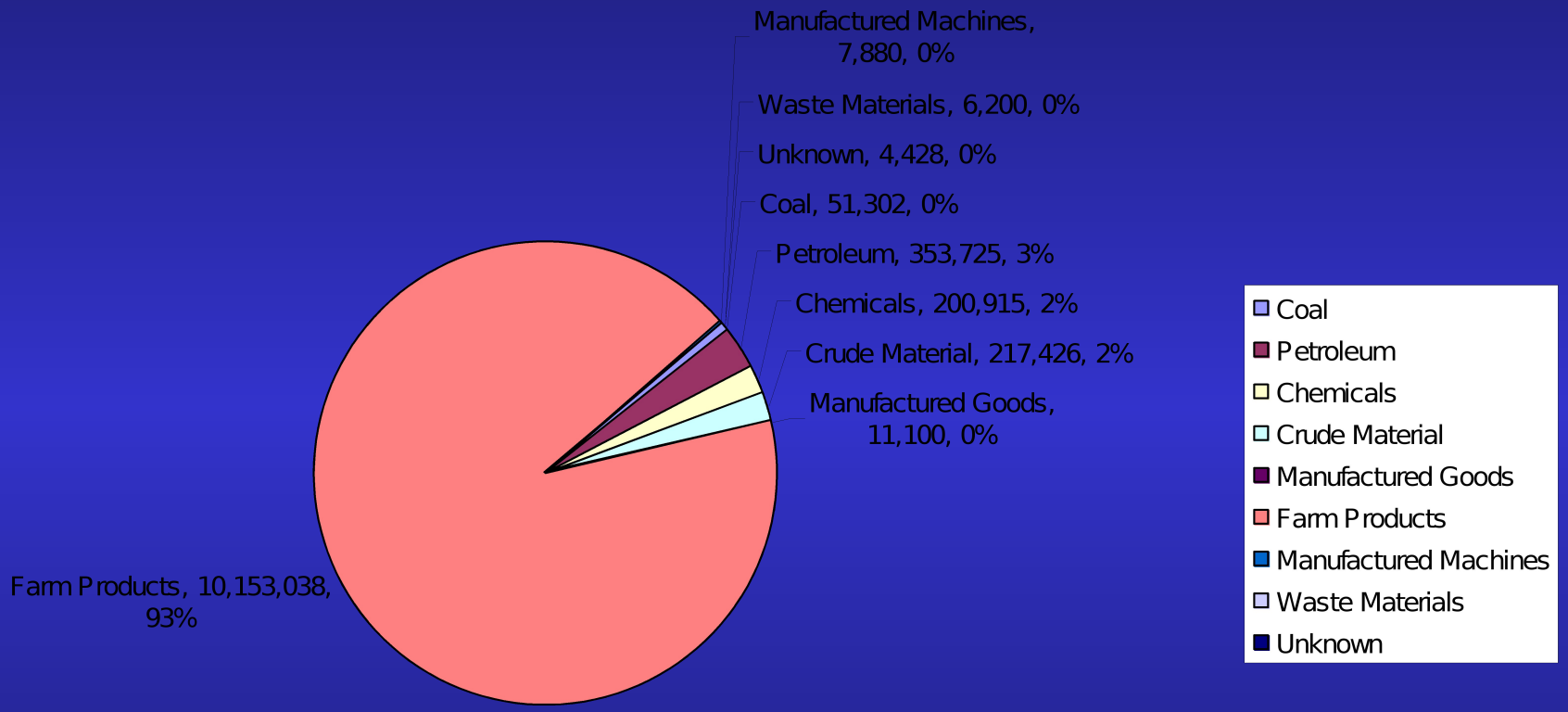
US Army Corps of Engineers®

Lock 15 2005 Upbound Total Tonnages by Commodity
Total Tons: 9,984,993

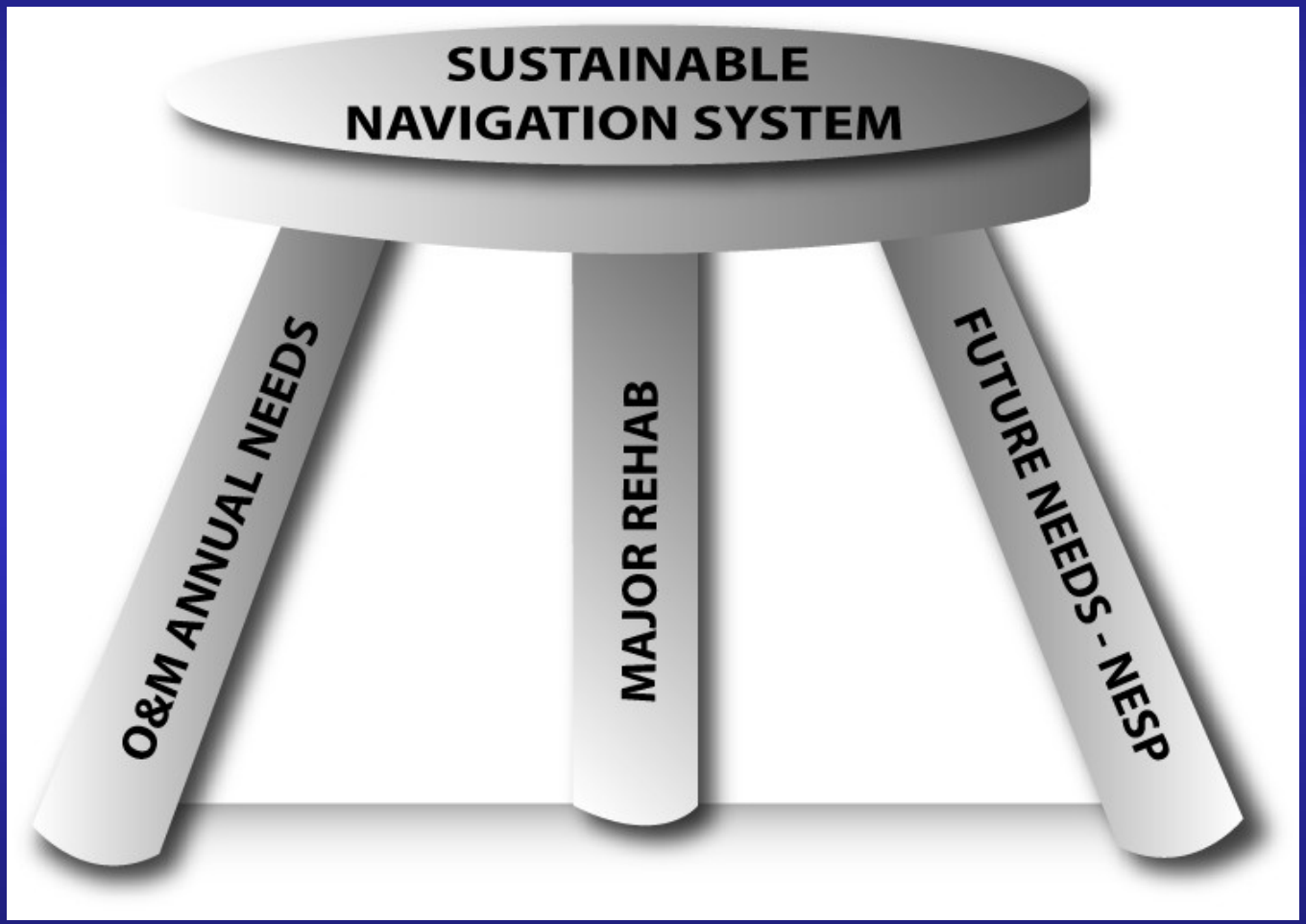


US Army Corps of Engineers®

Lock 15 2005 Downbound Total Tonnages by Commodity
Total Tons: 11,006,014



US Army Corps
of Engineers®



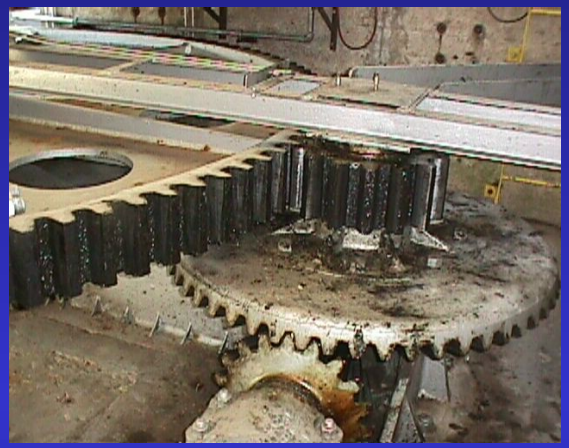
US Army Corps
of Engineers®

- Locks constructed in the 1930's
- Projected life span of 50 years
- Pictured here: Locks & Dam 15 under construction in 1930's (70 years ago)

US Army Corps of Engineers®

Aging Facilities

- Aging Factors
  - Freeze / Thaw
  - Ice
  - Corrosion
  - Fatigue / Use
  - Barge Impacts/ Abrasion
  - Concrete Deterioration

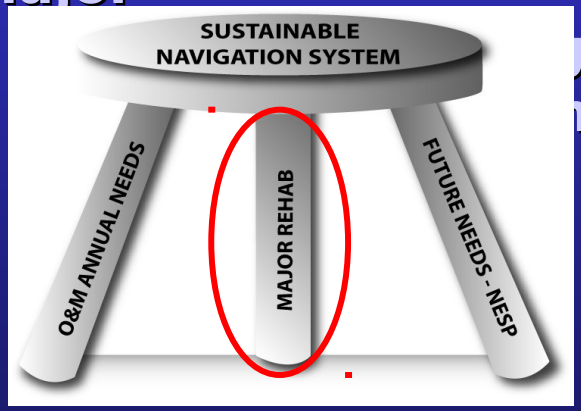


US Army Corps of Engineers®

Operations & Maintenance → Major Rehabilitation

- Repairs to keep the locks operating reliably are increasing as they age

- For major structural repairs & replacements, the major



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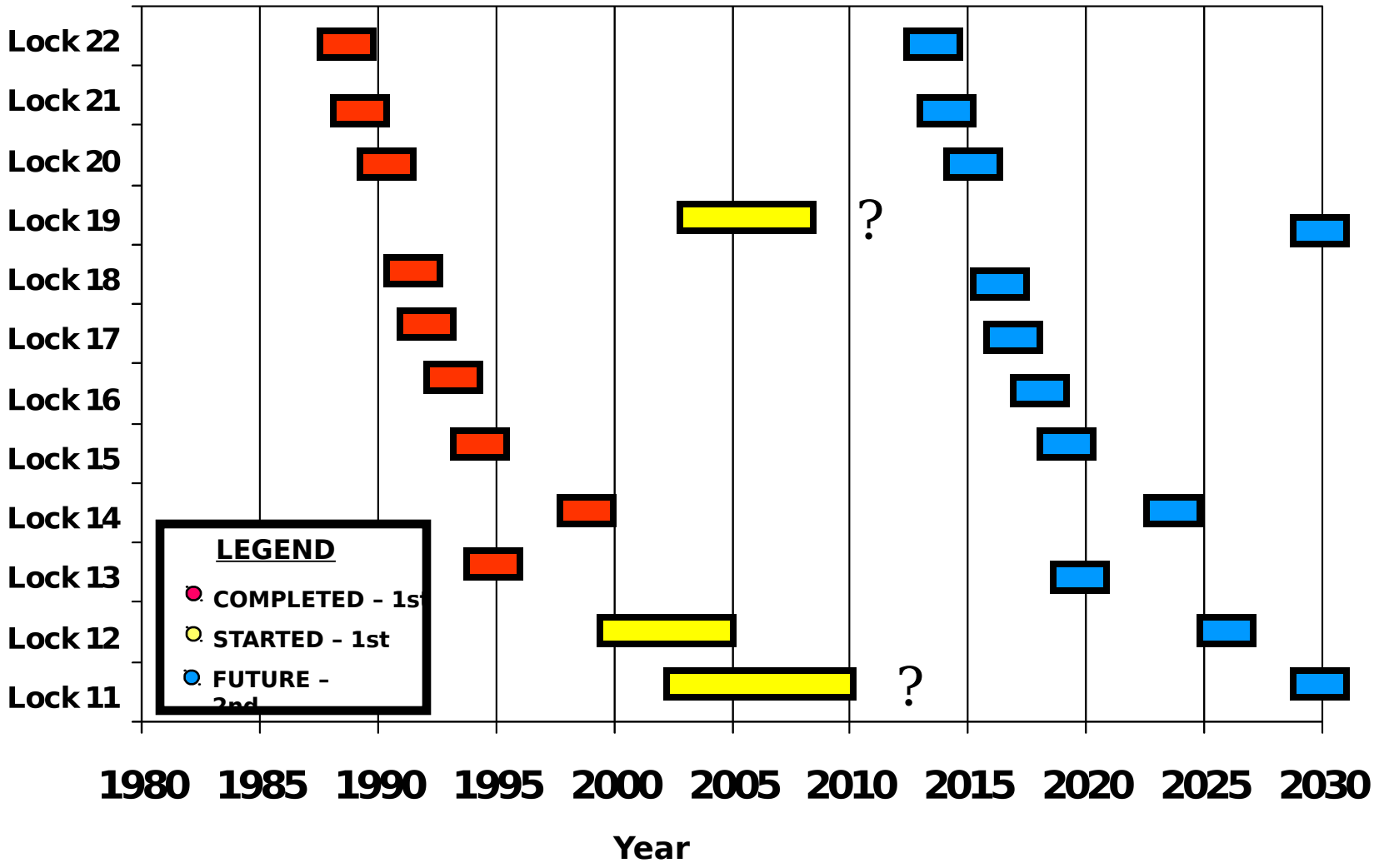
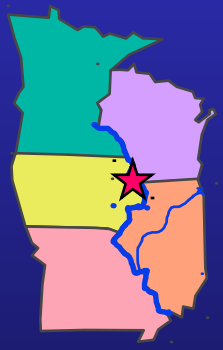
Schedule of Major Rehabilitations Upper Mississippi River in Rock Island District



US Army Corps of Engineers®

Lock & Dam 11
Dubuque, Iowa

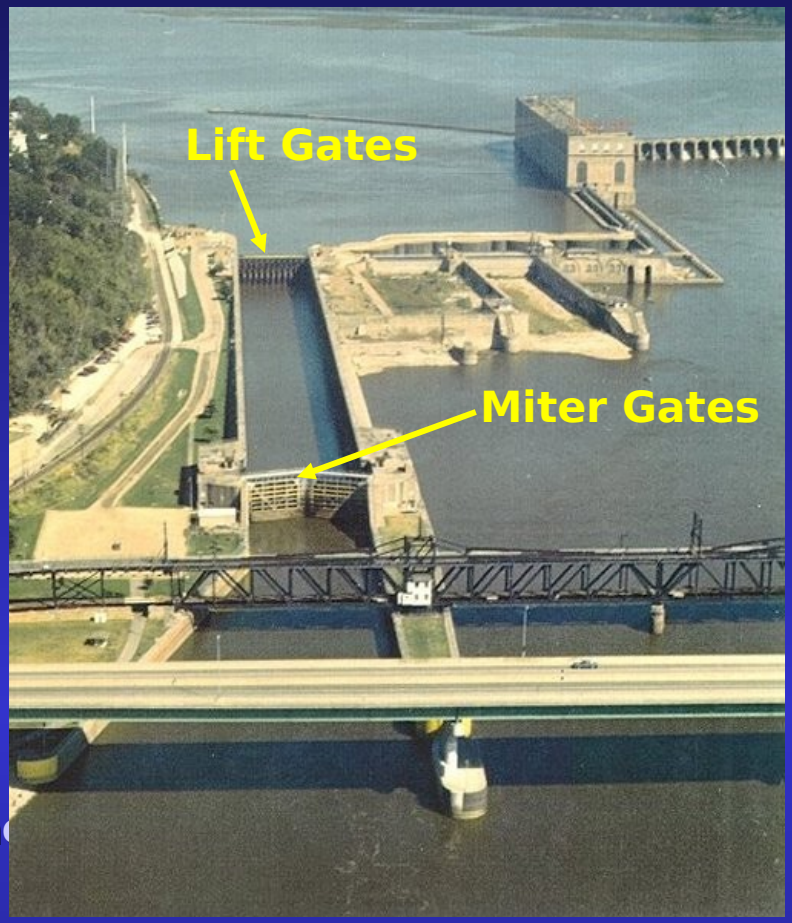
- FY02 New Start
- Stage I (Scour) Completed, $3
- Stage II (Lock) Underway, $26
- Stage III – $12 M Awaiting Fun

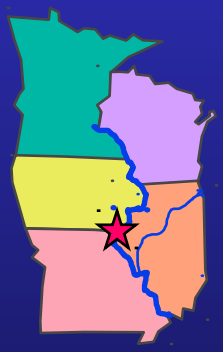


US Army Corps of Engineers®

Lock 19 Keokuk, Iowa

- FY03 New Start
- Major Rehab - $21 M CG/TF
  - $51M w/ Lock Concrete
- Major Maint. - $1 M O&M
- Staging of Work
  - Stage I – Lift Gate Repairs
  - Stage II – Miter Gates, Machinery & Electrical Replacem





US Army Corps of Engineers®

Lock 19 – Downstream Miter Gates

1998 -- Major cracking discovered & gates repaired

2003

- Additional major cracking found with gates determined not repairable
- Catastrophic failure of the gates was imminent
- Spare gate sections obtained from St. Louis District installed

US Army Corps of Engineers®

Lock Chamber Concrete

Lock 19
(Unfunded)

$30 Million

Rehab

Deteriorated concrete @ lower pool

Vertical corner protection armor damaged & missing

Note: For safety reasons, loose armor was torched off during 1998 dewatering. Protruding armor presents safety hazards during lockages.

US Army Corps of Engineers®

Lock Dewatering

Bulkheads (Stoplogs)

Existing structures are not compliant with prevailing code requirements

Poiree Dam

Life Safety Issue

US Army Corps of Engineers®

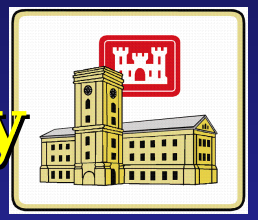
Bulkheads & Slots Funding Needs

- **Bulkheads**
  - St. Paul (1 set) = $4,500,000
  - Rock Island (1 set) = $4,500,000 - IWW
    (Assumes 1 UMR Set Funded from Lock 11 Rehab)
  - St. Louis (1 set) = Existing
    Total = $9 Million

- **Bulkhead Slots**
  - St. Paul (10 sites) = $25,000,000
  - Rock Island (13 sites) = $23,000,000
  - St. Louis (1 site) = $2,000,000
    Total = $50 Million

US Army Corps of Engineers®

Major Rehab/Maint Summary

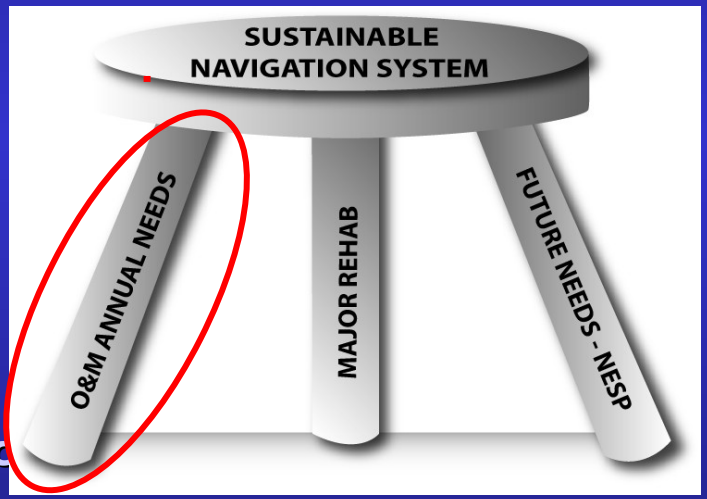


- Increasing risks to the nation's economy that is dependent upon reliable waterborne transportation.
- O&M program annual funding is not keeping up with deterioration of the 70-year old lock & dam structures.
- CG funded major rehabilitation program needs are compounding due to inadequate funding levels.
- Ability to dewater the locks for repairs & rehabilitation has been jeopardized due to unsafe existing bulkheads & poiree dams.

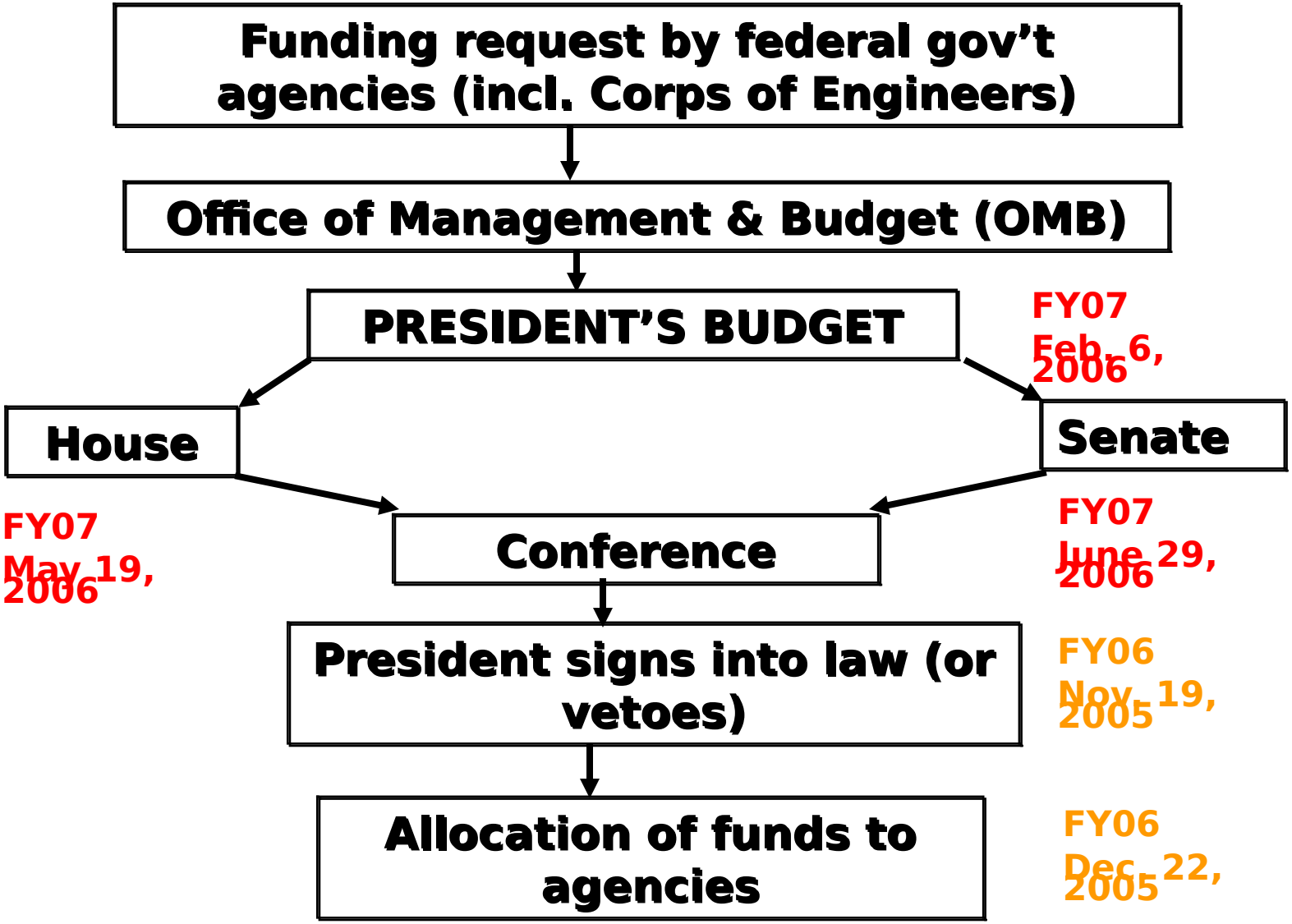
US Army Corps of Engineers®

FY2007 Mississippi River Project President's Budget -- $37,208,000

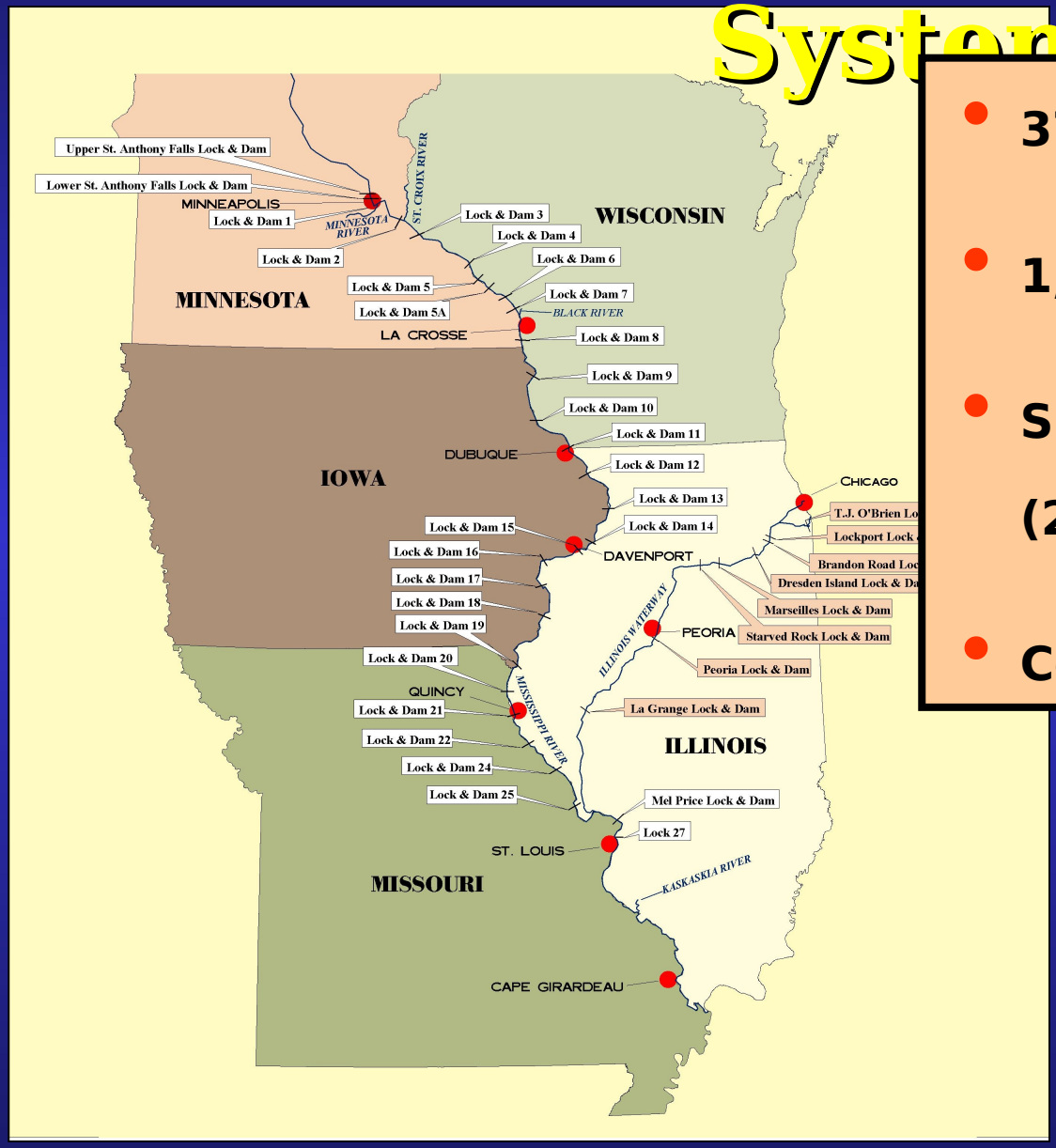
- $10,036,000 needed to continue current operations
- Potential reductions in services scheduled for FY2007:
  - All backlog maintenance & routine maintenance will cease
  - Dredging
  - Some ongoing contracts cancelled
  - Lock operating hours
  - natural resource management
  - Recreation
  - Stream gaging
  - Personnel impacts
- Additional needs:
  - Major maintenance @ Lock 19
  - Major maintenance @ L/D 11
  - Gregory drainage ditch maintenanc
  - Rehab L/D 15 hydropower turbine
  - Dredged material placement sites
  - Dredging
  - L/D 18 dam concrete design
  - Lock 21 miter gate replacement



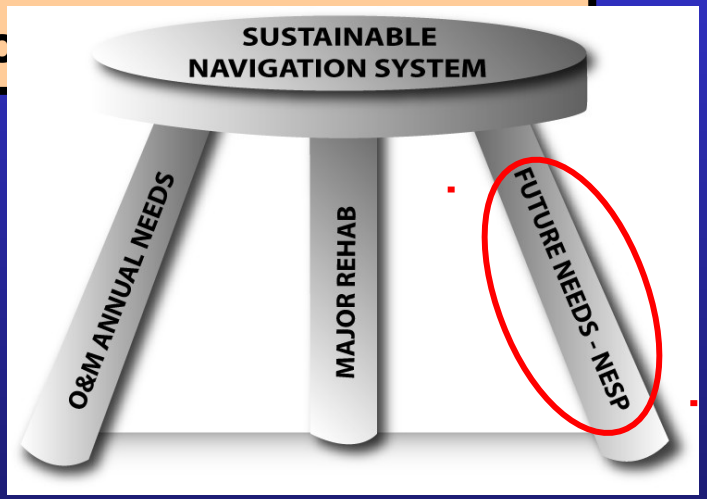
Budget & Appropriations Process


Funding request by federal gov't agencies (incl. Corps of Engineers)
Office of Management & Budget (OMB)
PRESIDENT'S BUDGET
FY07 Feb. 6, 2006
House
Senate
FY07 May 19, 2006
Conference
FY07 June 29, 2006
President signs into law (or vetoes)
FY06 Nov. 19, 2005
Allocation of funds to agencies
FY06 Dec. 22, 2005

Upper Mississippi River System



- 37 Lock Sites
- 1,200 Miles of River
- Significant Ecosystem (2.7 million acres)
- Co



Compare...

Iowa Department of Transportation

Source: Iowa Department of Transportation - 800 Lincoln Way - Ames, IA 50010 - 515-239-1312

Cargo Capacity

ONE BARGE	ONE 15 BARGE TOW	JUMBO HOPPER CAR	100 CAR TRAIN UNIT	LARGE SEMI
1,500 TON	22,500 TON	100 TON	10,000 TON	26 TON
52,500 BUSHELS	787,500 BUSHELS	3,500 BUSHELS	350,000 BUSHELS	910 BUSHELS
453,600 GALLONS	6,804,000 GALLONS	30,240 GALLONS	3,024,000 GALLONS	7,865 GALLONS

Equivalent Units

ONE BARGE

15 JUMBO HOPPER CARS

58 LARGE SEMIS

ONE 15 BARGE TOW

2.25 100 CAR UNIT TRAINS

870 LARGE SEMIS

Equivalent Lengths

ONE 15 BARGE TOW

.25 MILES

2.25 100 CAR TRAIN UNITS

2.75 MILES

870 LARGE SEMIS

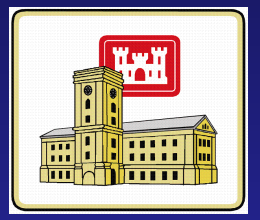
11.5 MILES
(BUMPER TO BUMPER)

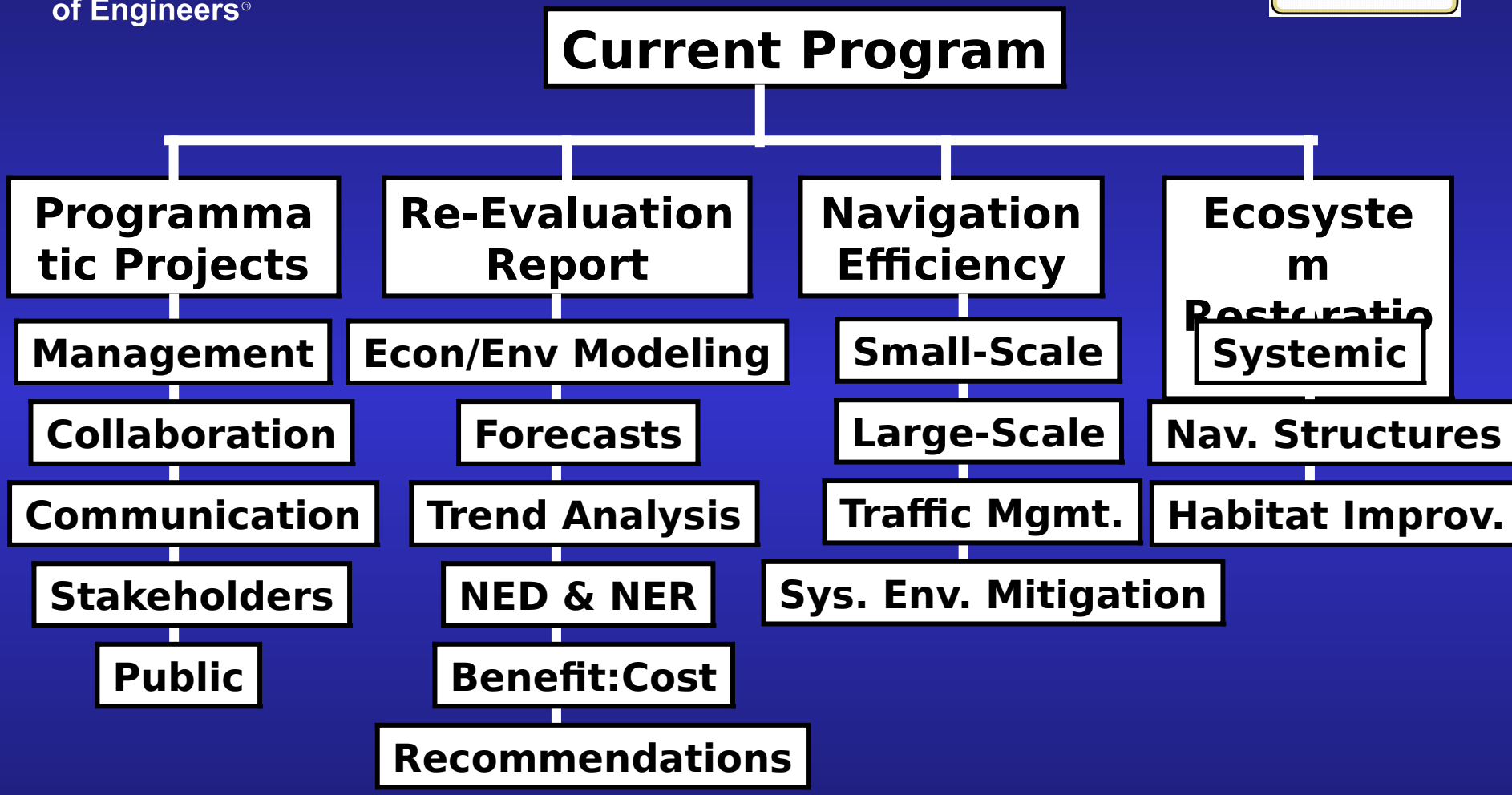
TR 444 12-21-94

US Army Corps of Engineers®

Navigation & Ecosystem Sustainability Program

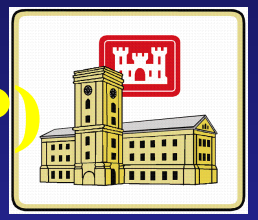
(Continued)





US Army Corps of Engineers®

Navigation & Ecosystem Sustainabilty Program (NESP)



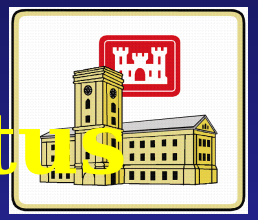
NESP 1st INCREMENT

$ Millions (Oct 2005 value)

Programmatic Projects	$49.6
Re-Evaluation Report	$4.6
Navigation Efficiency	$1,910.2
Ecosystem Restoration	$1,625.9
Total	$3,590.3

US Army Corps of Engineers®

Navigation & Ecosystem Sustainability Program Status



- Final Feasibility Report - September 2004
- Chief of Engineer's Report – December 2004
- Administration's position – January 2006
- Congressional action
  - House WRDA bill – July 14, 2005
  - Senate WRDA bill – July 19, 2006
- Pre-construction, engineering & design ($11.5 million FY 2005 & $10 million FY 2006)

US Army Corps of Engineers®

Upper Mississippi River Environmental Management Program

One Team: Relevant, Ready, Responsive and Reliable

US Army Corps of Engineers®

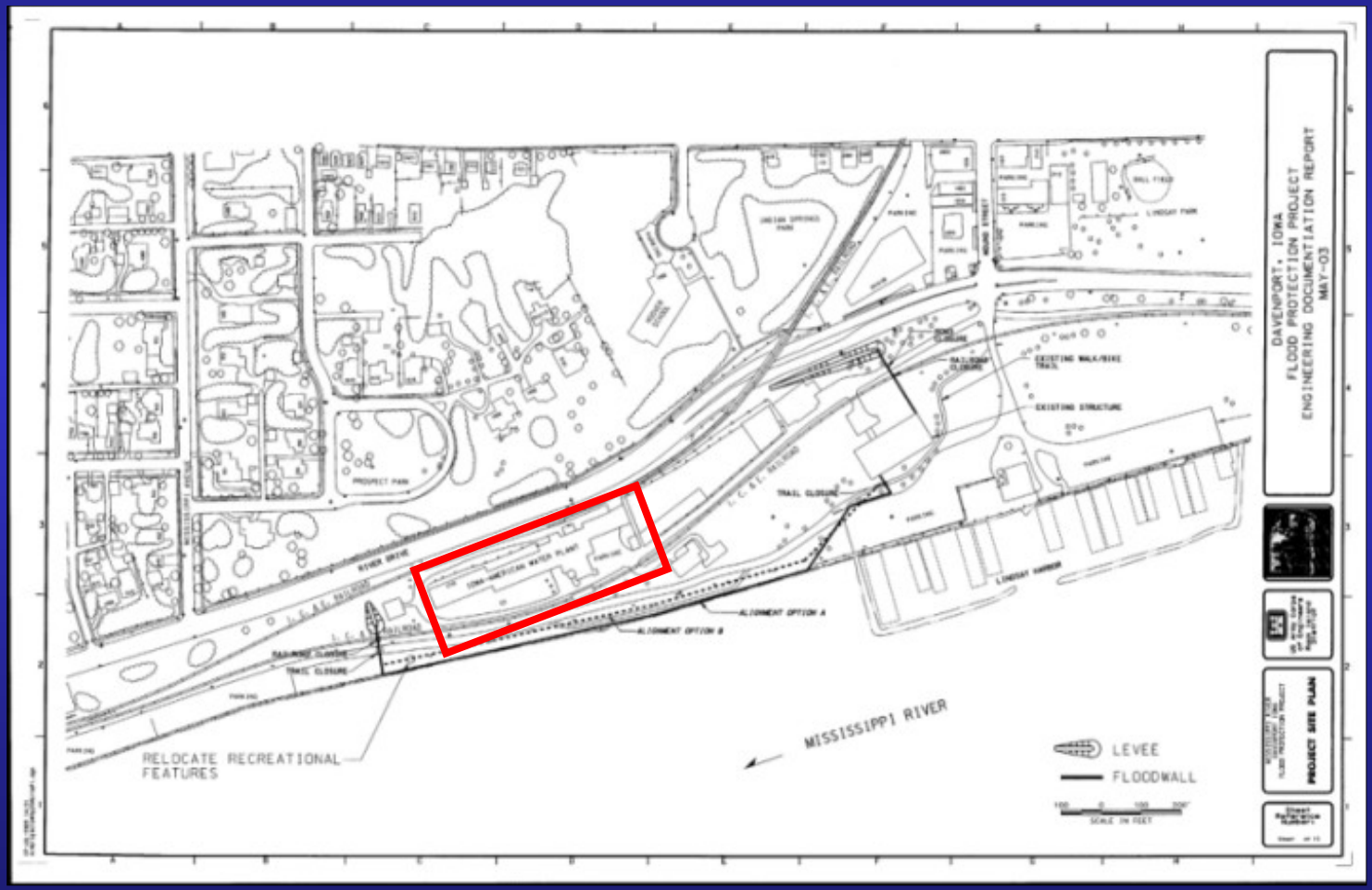
Pool 11 Islands Habitat Rehabilitation & Enhancement Project

Before

After

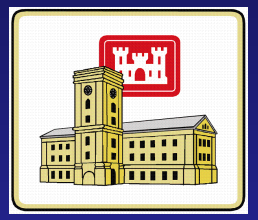
US Army Corps of Engineers®

Davenport Water Treatment Facility Flood Damage Reduction Project



US Army Corps of Engineers®

Status for FY07
Mississippi River Navigation



- **NESP (Nav Study)**
  - Awaiting conference committee for WRDA
  - PED funding uncertain (Pres & House = 0, Senate = $20m)
- **O&M**
  - Need addit. $10m to maintain basic level of service ($37.3m P,H,S)
  - Need at least $2.8m to continue contract at Lock 11
  - Need $1.75m to continue contract at Lock 19
- **Rehab/Trust fund**
  - Lock 11-Could use addit. $4m ($20.3m P,H; 18.35m S)
  - Lock 19--$5.44m P,H,S is adequate

Rock Island District